

ceedings of American Railway Master Mechanics' Association, 1902.

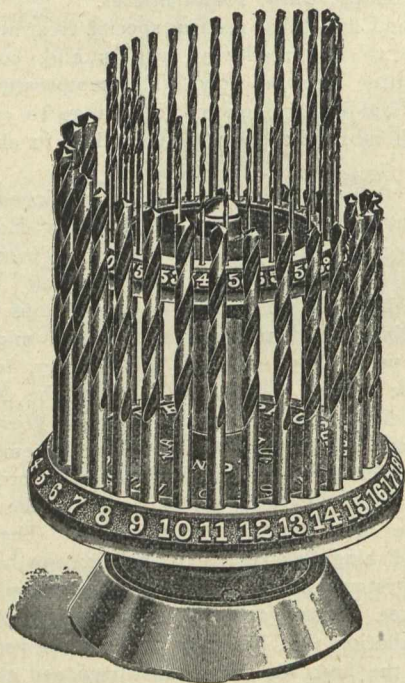
"A. Van Alstine, in describing an ideal round-house, says: 'It is heated by hot air from heater and fan, which passes around the house through an underground duct, on the inside circle it is distributed to pits through the underground pipes.'

"On page 141, under Heating and Ventilation, we find the following: 'Nearly all large round-houses of recent construction are equipped with fan systems, these being considered as furnishing the ideal method of heating. Various methods are employed to distribute the hot air into pits, the chief point of interest being the method of delivering the air under the engines and tenders for the purpose of quickly melting snow and ice.'

As further touching upon the subject of paint shops, Mr. Gifford stated that he had been told by a prominent railroad engineer, "that aside from the question of heating the shop, the drying of the paint and varnish is a chemical question and, for that reason, the advantage of the hot-blast system lies in the fact that you can handle large quantities of air, so that you have an active circulation and a rapid impingement of the air upon the painted surface, causing a rapid oxidation of the paint and varnish."

### REVOLVING DRILL STAND.

The accompanying cut represents a revolving stand for holding wire gauge drills from Nos. 1 to 60, offered by the Fairbanks' Company, Montreal, Canadian agents for the New Process Twist Drill Company. The drills are placed in the



revolving plates and any size wanted can be instantly obtained by turning the plates in either direction. The holes in the plates are drilled with the drill belonging to them, so that the stand in a way is a drill gauge, and the drills cannot become mixed. For instance, the hole marked No. 9 is too large for a No. 10 drill, and a No. 10 drill will not go into a No. 11 hole. The stand is nickel-plated and nicely finished so as to make an attractive display of the drills either in a show window or about the store. It is also referred to as being a useful article in machine shops.

### CANADIAN SOCIETY OF CIVIL ENGINEERS.

The final meeting of the Canadian Society of Civil Engineers for the session of 1902-1903 was held on the 21st ult. The session has been noteworthy for the large number of applications for membership, and for the number and quality of papers read. The special prizes for the best students' papers have proved a very interesting feature of the society's work during the year, and the council has decided

to continue them for the coming year. Besides the prize offered by the Canadian Engineer, three others will be given again by the society this year. The Canadian Engineer prize essay appears elsewhere in this issue, and the other essays will appear in future numbers.

The following was the result of the ballot, at the last meeting, for new members and transfers from one class to another:

Members.—Richard Sutton Buck, of Montreal; Guy Colin Carman, of Iroquois, Ont.; Henry Goldmark, of Montreal; Ira Grant Hedrick, of Kansas City; Alexander James McMillan, of Vancouver, B.C.; Frank Moberly, of Victoria, B.C.; Charles M. Odell, of Sydney, N.S.; George Washington Stadly, of Sault Ste. Marie; Arthur B. Stephen, of Collingwood, Ont.; John Alexander L. Waddell, of Kansas City, Mo.

Associate Members.—Charles Alfred Abbot, of Toronto, Ont.; John Armstrong, of Edmonton, Alta.; Frederick William Farncomb, of London, Ont.; Joseph Eugene Larochelle, of Levis, P.Q.; George Peter MacLaren, of Caledonia, Queen's County, N.S.; Joseph Allyre Roy, of Montreal, P.Q.; Frederick John Ure, of Woodstock, Ont.

Transferred from the Class of Associate Member to the Class of Member.—Walter Peck Chapman, Hamilton, Ont.; Charles Burrard Kingston, of London, Eng.

Transferred from the Class of Student to the Class of Associate Member.—William Forrest Angus, of Montreal, P.Q.; Reginald Herbert Balfour, of Montreal; Lennox Thomson Bray, of Amherstburg; William E. L. Dyer, of Montreal; Wilford Almon Hare, of Joliet, Ill.; Levin James Houston, Jr., Stockton, Maryland; Charles Alexander Waterous, of Brantford, Ont.

Students.—James de Gaspé Beaubien, of Outremont; Douglas Edward Black, of Montreal; Samuel Blumenthal, of Montreal; Charles McKinnon Campbell, of Eganville, Ont.; John Alven Cameron, of Montreal; Mellis Urquhart Ferguson, of Kingston, Ont.; John Robert Grant, of Kingston, Ont.; Alexander Hunter Greenlees, of London, Ont.; Oliver Odilon Lefebvre, of Ottawa, Ont.; Allan Campbell Mackenzie, of Montreal; Alexander James Milder, of Kingston, Ont.; William James McAllister, of Montreal; Charles William Stuart, of Winnipeg; Clarence Richard Young, of Toronto.

The Iola Portland Cement Co., at Iola, Kansas, operates its plant upon natural fuel, and is one of the largest users of gas power in the cement manufacturing field. The present equipment comprises twelve engines of the Westinghouse vertical three-cylinder and two-cylinder single acting type, aggregating 2,100-h.p. These engines operate various classes of machinery, such as rock crushers, rotary kilns, line shafting and generators, for supplying light and incidental power throughout the works. The power plant comprises six engines of 280-h.p. each, five of 125-h.p. each, and two small engines. The 125-h.p. engines are used for driving the kilns, and the 280-h.p. for the rotary crushers. The machinery is in general arranged in groups upon sections of counter shafting driven by a single engine either direct-connected or rope driven.

The International Asbestos Co., H. S. Pridmore, Actinolite, Ont., agent; the Empire Wall Paper Co., H. C. Jarvis, Toronto, agent, and the Von Echa Co., S. R. Ickes, Woodstock, Ont., agent, all extra provincial companies, have been licensed to do business in Ontario.

Alfred Herbert, Limited, machine tool makers, Coventry, England, are laying plans for some important extensions to their works. These extensions will include additions to both erecting and machine shops, and will include a new stores and control department, a new mess-room for the workmen, a new pattern shop and an entirely new power house in which will be concentrated all the steam and electric power which is at present divided among several departments. The additions to the generating plant will include a 350-h.p. steam engine, driving a direct current multipolar generator. These developments have been forced upon the company by the increased demands for their turret lathes, milling machines, and other special machine tools. The number of employees at present is 930, which will be considerably increased when the new works are in shape.